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FILE COVERS 1907 - 15 Nov 2005 VOL 143 ISS 21
FILE LAST UPDATED: 14 Nov 2005 (20051114/ED)

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=> s 17
L8 6585 L7

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STRUCTURE FILE UPDATES: 14 NOV 2005 HIGHEST RN 868046-42-8
DICTIONARY FILE UPDATES: 14 NOV 2005 HIGHEST RN 868046-42-8

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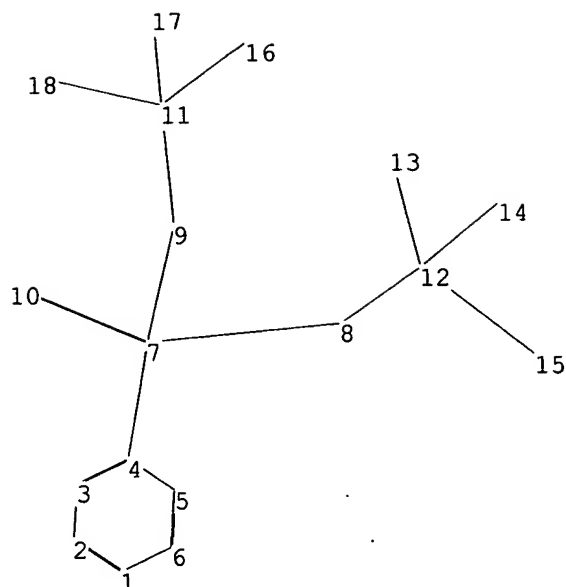
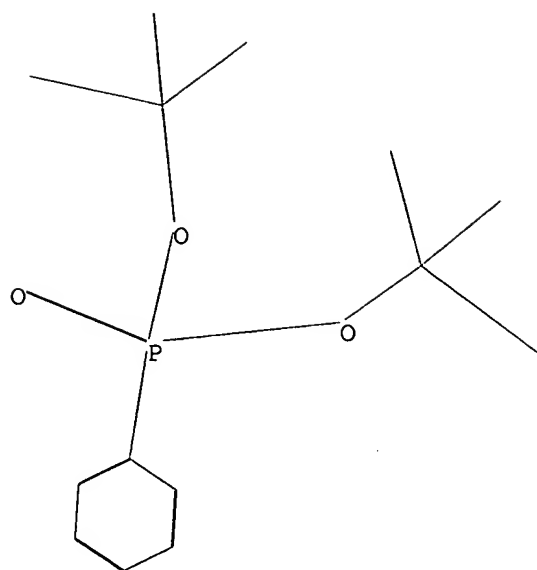
*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS
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=>
Uploading C:\Program Files\Stnexp\Queries\10698255g.str



chain nodes :

7 8 9 10 11 12 13 14 15 16 17 18

ring nodes :

1 2 3 4 5 6

chain bonds :

4-7 7-8 7-9 7-10 8-12 9-11 11-16 11-17 11-18 12-13 12-14 12-15

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

7-8 7-9 7-10 8-12 9-11

exact bonds :

4-7 11-16 11-17 11-18 12-13 12-14 12-15

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

Match level :

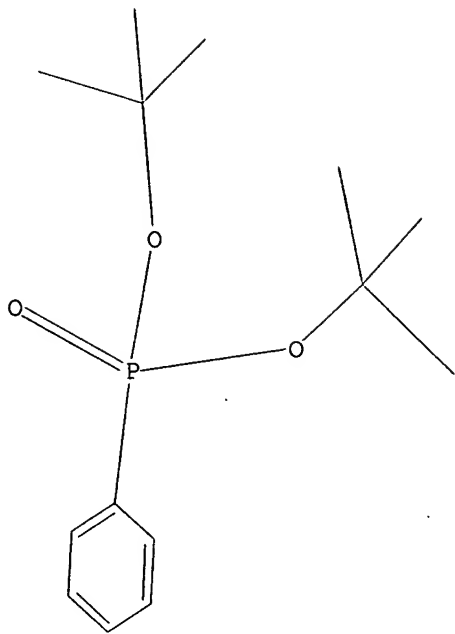
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS

L9 STRUCTURE UPLOADED

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L9 HAS NO ANSWERS

L9 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 19

SAMPLE SEARCH INITIATED 11:43:12 FILE 'REGISTRY'
 SAMPLE SCREEN SEARCH COMPLETED - 7 TO ITERATE

100.0% PROCESSED 7 ITERATIONS 3 ANSWERS
 SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
 BATCH **COMPLETE**
 PROJECTED ITERATIONS: 7 TO 298
 PROJECTED ANSWERS: 3 TO 163

L10 3 SEA SSS SAM L9

=> s 19 full

FULL SEARCH INITIATED 11:43:15 FILE 'REGISTRY'
 FULL SCREEN SEARCH COMPLETED - 85 TO ITERATE

100.0% PROCESSED 85 ITERATIONS 44 ANSWERS
 SEARCH TIME: 00.00.01

L11 44 SEA SSS FUL L9

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
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FILE 'CAPLUS' ENTERED AT 11:43:18 ON 15 NOV 2005
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FILE LAST UPDATED: 14 Nov 2005 (20051114/ED)

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=> s l11

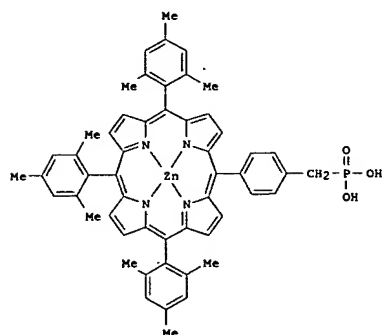
L12 15 L11

=> d ibib abs hitstr tot

L12 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2005:394876 CAPLUS
 DOCUMENT NUMBER: 142:440857
 TITLE: Synthesis of phosphono-substituted porphyrin compounds
 for attachment to metal oxide surfaces
 INVENTOR(S): Lindsey, Jonathan S.; Loewe, Robert S.; Muthukumaran, Kannan; Ambroise, Arounaguiry
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 29 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005096465	A1	20050505	US 2003-698255	20031031
PRIORITY APPLN. INFO.:			US 2003-698255	20031031

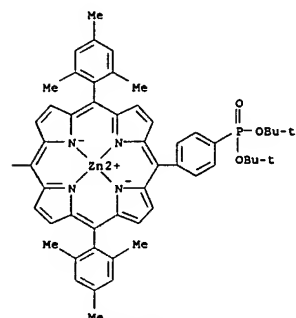
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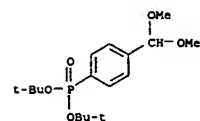
AB A method is described for making phosphono-substituted dipyrromethane derivs. comprising reacting an aldehyde or acetal having at least one phosphono group with pyrrole to produce a phosphono-substituted dipyrromethane. The phosphono substituent is selected from the group consisting of dialkyl phosphono, diaryl phosphono, and dialkylaryl phosphono. The dipyrromethane is used to prepare phosphono-substituted chlorins and porphyrins which can potentially be attached to metal oxide surfaces. Thus, zinc 5-[4-(phosphonomethyl)phenyl]-10,15,20-

L12 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B



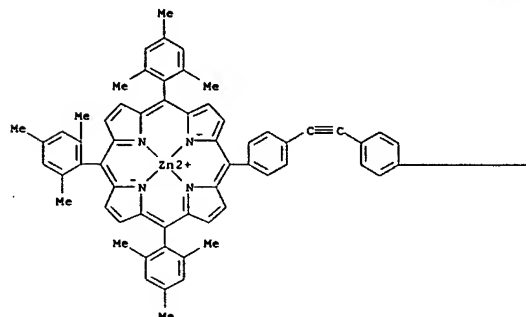
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 651301-65-4P 651301-78-9P 651301-87-0P
 651301-88-1P 651301-99-4P 850876-00-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of phosphono-substituted porphyrin compds.)
 RN 651301-51-8 CAPLUS
 CN Phosphonic acid, [4-(dimethoxymethyl)phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



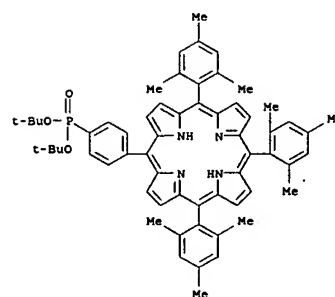
RN 651301-53-0 CAPLUS
 CN Phosphonic acid,
 [4-[10,15,20-tris(2,4,6-trimethylphenyl)-21H,23H-porphin-5-yl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

L12 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 trimesitylporphyrin (I) was prepd. Addnl. methods, intermediates and products are also described.
 IT 850876-07-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (dyad; preparation of phosphono-substituted porphyrin compds.)
 RN 850876-07-2 CAPLUS
 CN Zinc, {μ-[bis(1,1-dimethylethyl) [4-[10,20-bis(2,4,6-trimethylphenyl)-15-[4-[4-[10,15,20-tris(2,4,6-trimethylphenyl)-21H,23H-porphin-5-yl-κN21,κN22,κN23,κN24]phenyl]ethynyl]phenyl]-21H,23H-porphin-5-yl-κN21,κN22,κN23,κN24]phenyl]phosphonat o(4-)]di- (9CI) (CA INDEX NAME)

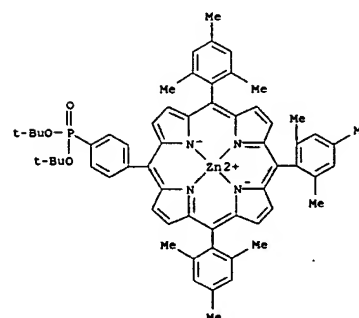
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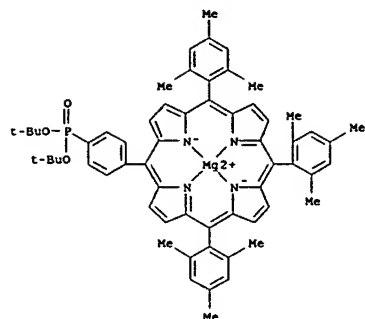
L12 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



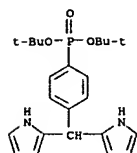
RN 651301-57-4 CAPLUS
 CN Zinc, [bis(1,1-dimethylethyl) [4-[10,15,20-tris(2,4,6-trimethylphenyl)-21H,23H-porphin-5-yl-κN21,κN22,κN23,κN24]phenyl]phosphonato(2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)



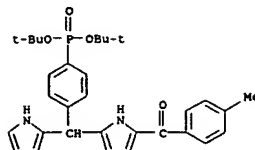
RN 651301-65-4 CAPLUS
 CN Magnesium, [bis(1,1-dimethylethyl) [4-[10,15,20-tris(2,4,6-trimethylphenyl)-21H,23H-porphin-5-yl-κN21,κN22,κN23,κN24]phenyl]phosphonato(2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)



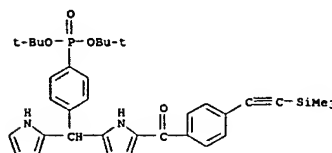
RN 651301-78-9 CAPLUS
CN Phosphonic acid, [4-(di-1H-pyrrol-2-ylmethyl)phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 651301-87-0 CAPLUS
CN Phosphonic acid, [4-([5-(4-methylbenzoyl)-1H-pyrrol-2-yl]-1H-pyrrol-2-ylmethyl)phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

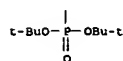
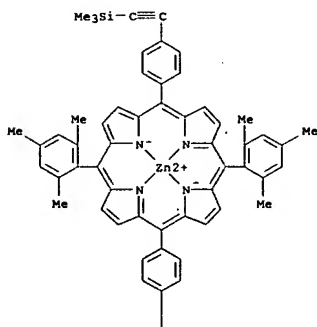


RN 651301-88-1 CAPLUS
CN Phosphonic acid, [4-(1H-pyrrol-2-yl[5-[4-((trimethylsilyl)ethynyl)benzoyl]-1H-pyrrol-2-yl)methyl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



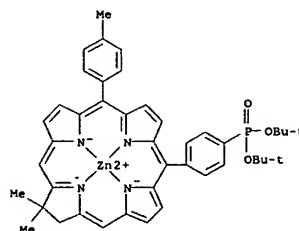
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CN Zinc, [bis(1,1-dimethylethyl) [4-[10,20-bis(2,4,6-trimethylphenyl)-15-[4-((trimethylsilyl)ethynyl)phenyl]-21H,23H-porphin-5-yl-κN21,κN22,κN23,κN24]phenyl]phosphonato(2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)

PAGE 1-A

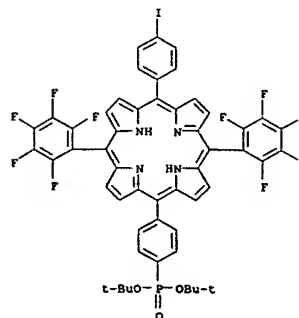


RN 850876-00-5 CAPLUS
CN Zinc, [bis(1,1-dimethylethyl) [4-(17,18-dihydro-10-(4-methylphenyl)-17,17-dimethyl-21H,23H-porphin-5-yl-κN21,κN22,κN23,κN24]phenyl]phosphonato(2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)

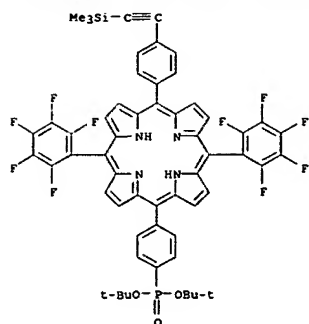
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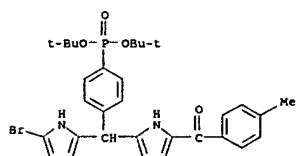
IT 651301-82-5P 651301-85-8P 651302-30-6P
850875-90-0P 850875-96-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of phosphono-substituted porphyrin compds.)
RN 651301-82-5 CAPLUS
CN Phosphonic acid, [4-[15-(4-iodophenyl)-10,20-bis(pentafluorophenyl)-21H,23H-porphin-5-yl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 651301-85-8 CAPLUS
CN Phosphonic acid, [4-[10,20-bis(pentafluorophenyl)-15-[4-((trimethylsilyl)ethynyl)phenyl]-21H,23H-porphin-5-yl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 651302-30-6 CAPLUS
 CN Phosphonic acid, [4-[(5-bromo-1H-pyrrol-2-yl)[5-(4-methylbenzoyl)-1H-pyrrol-2-yl]methyl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 850875-90-0 CAPLUS
 CN Phosphonic acid, [4-[10-(4-iodophenyl)-15-(2,4,6-trimethylphenyl)-20-[4-(trimethylsilyl)ethynyl]phenyl]-21H,23H-porphin-5-yl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

ACCESSION NUMBER: 2003:965574 CAPLUS
 DOCUMENT NUMBER: 140:156138
 TITLE: Porphyrins Bearing Arylphosphonic Acid Tethers for Attachment to Oxide Surfaces
 AUTHOR(S): Muthukumar, Kannan; Loewe, Robert S.; Ambrose, Arounaguiry; Tamaru, Shunichi; Li, Qiliang; Mathur, Guru; Bocian, David F.; Misra, Veena; Lindsey, Jonathan S.
 CORPORATE SOURCE: Departments of Chemistry and Electrical and Computer Engineering, North Carolina State University, Raleigh, NC, 27695-8204, USA
 SOURCE: Journal of Organic Chemistry (2004), 69(5), 1444-1452
 CODEN: JOCEAH; ISSN: 0022-3263
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English

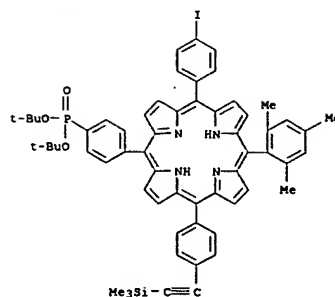
AB Synthetic mols. bearing phosphonic acid groups can be readily attached to oxide surfaces. As part of a program in mol.-based information storage, the authors have developed routes for the synthesis of diverse porphyrinic

compds. bearing phenylphosphonic acid tethers. The routes enable (1) incorporation of masked phosphonic acid groups in precursors for use in the rational synthesis of porphyrinic compds. and (2) derivatization of porphyrins with masked phosphonic acid groups. The precursors include dipyrromethanes, monoacyldipyrromethanes, and diacyldipyrromethanes. The tert-Bu group was used to mask the dihydroxyphosphoryl substituent. The di-tert-butylphosphoryl unit is stable to the range of conditions employed in syntheses of porphyrins and multiporphyrin arrays yet can be deprotected under mild conditions ($\text{TMS}-\text{Cl}/\text{TEA}$ or $\text{TMS}-\text{Br}/\text{TEA}$ in refluxing CHCl_3) that do not cause demetalation of Zn or Mg porphyrins. The porphyrinic compds. that were prepared include (1) A3B-, trans-AB2C-, and ABCD-porphyrins that bear a single phenylphosphonic acid group, (2) a trans-A2B2-porphyrin bearing two phenylphosphonic acid groups, (3) a chlorin that bears a single phenylphosphonic acid group, and (4) a porphyrin dyad bearing a single phenylphosphonic acid group. For

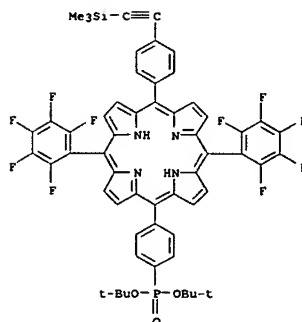
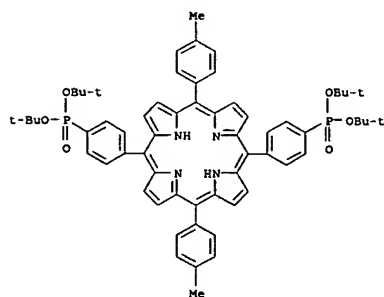
selected porphyrin-phosphonic acids, the electrochem. characteristics were studied for mols. tethered to SiO_2 surfaces grown on doped Si. The voltammetric behavior indicates that the porphyrin-phosphonic acids form robust, elec. well-behaved monolayers on the oxide surface.

IT 651301-85-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and complexation with magnesium)

RN 651301-85-8 CAPLUS
 CN Phosphonic acid, [4-[10,20-bis(pentafluorophenyl)-15-[4-(trimethylsilyl)ethynyl]phenyl]-21H,23H-porphin-5-yl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

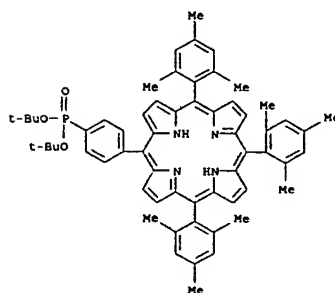


RN 850875-96-6 CAPLUS
 CN Phosphonic acid, [[10,20-bis(4-methylphenyl)-21H,23H-porphine-5,15-diyl]di-4,1-phenylene]bis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



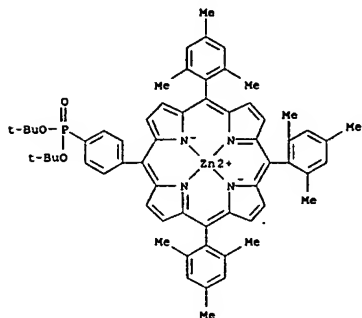
IT 651301-53-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and complexation with magnesium and zinc)

RN 651301-53-0 CAPLUS
 CN Phosphonic acid, [4-[10,15,20-tris(2,4,6-trimethylphenyl)-21H,23H-porphin-5-yl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



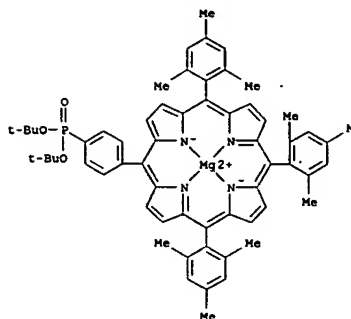
IT 651301-57-4P 651301-65-4P 651301-94-9P

L12 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 651301-99-4P 651302-18-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and deprotection of)
 RN 651301-57-4 CAPLUS
 CN Zinc, [bis(1,1-dimethylethyl) [4-([10,15,20-tris(2,4,6-trimethylphenyl)-
 21H,23H-porphin-5-yl-κN21,κN22,κN23,κN24]phenyl]ph
 osphonato(2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)

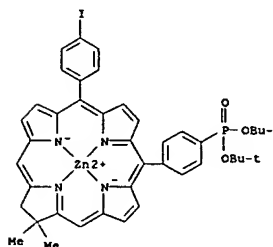


RN 651301-65-4 CAPLUS
 CN Magnesium, [bis(1,1-dimethylethyl) [4-([10,15,20-tris(2,4,6-
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L12 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



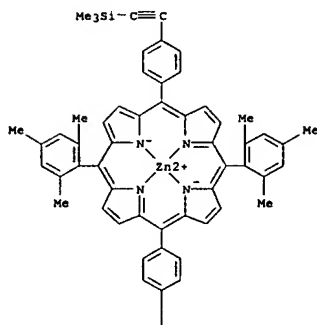
RN 651301-94-9 CAPLUS
 CN Zinc, [bis(1,1-dimethylethyl) [4-([17,18-dihydro-10-(4-iodophenyl)-18,18-
 dimethyl-21H,23H-porphin-5-yl-κN21,κN22,κN23,κN24]
 phenyl]phosphonato(2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)



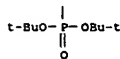
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 CN Zinc, [bis(1,1-dimethylethyl) [4-([10,20-bis(2,4,6-trimethylphenyl)-15-[(4-
 {[(trimethylsilyl)ethyl]phenyl]-21H,23H-porphin-5-yl-
 κN21,κN22,κN23,κN24]phenyl]phosphonato(2-)]-,
 (SP-4-2)- (9CI) (CA INDEX NAME)

L12 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A



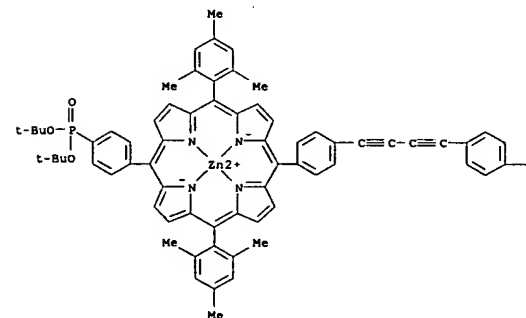
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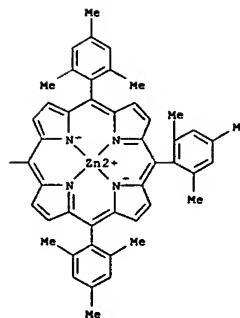
RN 651302-18-0 CAPLUS
 CN Zinc, [μ-[bis(1,1-dimethylethyl) [4-([10,20-bis(2,4,6-trimethylphenyl)-
 15-[(4-{[(trimethylsilyl)ethyl]phenyl]-21H,23H-porphin-5-yl-
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 21H,23H-porphin-5-yl-κN21,κN22,κN23,κN24]phenyl]ph
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L12 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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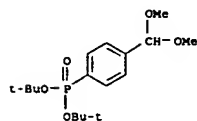


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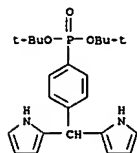


IT 651301-51-0P 651301-78-0P 651301-87-0P
 651301-88-1P 651301-91-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

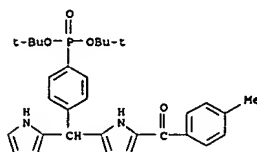
L12 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 (prepn. and reactant for prepn. of zinc/magnesium complexes with
 porphyrins having arylphosphonic acid tethers)
 RN 651301-51-8 CAPLUS
 CN Phosphonic acid, [4-[(dimethoxymethyl)phenyl]-, bis(1,1-dimethylethyl)
 ester (9CI) (CA INDEX NAME)



RN 651301-78-9 CAPLUS
 CN Phosphonic acid, [4-(di-1H-pyrrol-2-ylmethyl)phenyl]-,
 bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

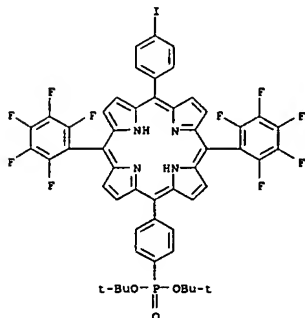


RN 651301-87-0 CAPLUS
 CN Phosphonic acid, [4-[(5-(4-methylbenzoyl)-1H-pyrrol-2-yl)-1H-pyrrol-2-ylmethyl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

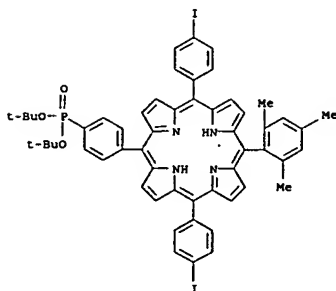


RN 651301-88-1 CAPLUS
 CN Phosphonic acid,
 [4-[(1H-pyrrol-2-yl)[5-[4-[(trimethylsilyl)ethynyl]benzoyl]-1H-pyrrol-2-yl]methyl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

L12 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

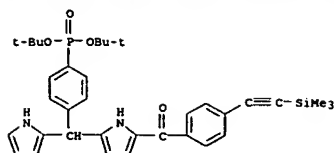


RN 651301-86-9 CAPLUS
 CN Phosphonic acid, [4-[(10,20-bis(4-iodophenyl)-15-(2,4,6-trimethylphenyl)-21H,23H-porphin-5-yl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

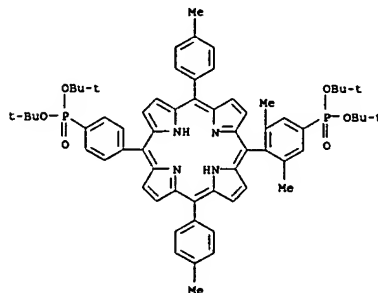


RN 651302-02-2 CAPLUS
 CN Zinc, [bis(1,1-dimethylethyl) [4-[(15-(4-ethynylphenyl)-10,20-bis(2,4,6-trimethylphenyl)-21H,23H-porphin-5-yl)-κN21,κN22,κN23,κN24]phenyl]phosphonato(2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)

L12 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



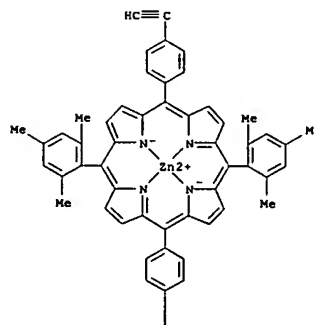
RN 651301-91-6 CAPLUS
 CN Phosphonic acid, [4-[(15-[4-bis(1,1-dimethylethoxy)phosphinyl]-2,6-dimethylphenyl]-10,20-bis(4-methylphenyl)-21H,23H-porphin-5-yl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



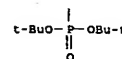
IT 651301-82-5P 651301-86-9P 651302-02-2P
 651302-14-6P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (Preparation of)
 RN 651301-82-5 CAPLUS
 CN Phosphonic acid, [4-[(15-(4-iodophenyl)-10,20-bis(pentafluorophenyl)-21H,23H-porphin-5-yl]phenyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

L12 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A

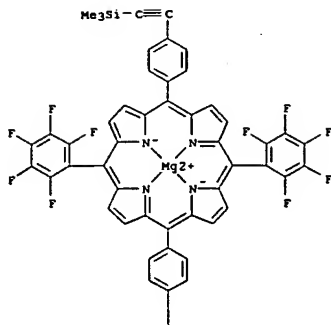


PAGE 2-A

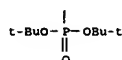


RN 651302-14-6 CAPLUS
 CN Magnesium, [bis(1,1-dimethylethyl) [4-[(10,20-bis(pentafluorophenyl)-15-[4-[(trimethylsilyl)ethynyl]phenyl]-21H,23H-porphin-5-yl)-κN21,κN22,κN23,κN24]phenyl]phosphonato(2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



IT 651302-30-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant for preparation of magnesium/zinc complexes with porphyrins

having

arylphosphonic acid tethers)

RN 651302-30-6 CAPLUS

CN Phosphonic acid, [4-[(5-bromo-1H-pyrrol-2-yl)][5-(4-methylbenzoyl)]-1H-pyrrol-2-yl]methylphenyl-, bis(1,1-dimethylethyl) ester (9CI) (CA

INDEX
NAME)

L12 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:629053 CAPLUS

DOCUMENT NUMBER: 135:34781

TITLE: Phosphonates as non-salt-type latent initiators for

vinyl ether polymerization

AUTHOR(S): Kim, M. S.; Sanda, F.; Endo, T.

CORPORATE SOURCE: Chemical Resources Laboratory, Tokyo Institute of

Technology, Midori-ku, Yokohama, 226-8503, Japan

SOURCE: Polymer (2001), 42(23), 9367-9370

CODEN: POLMAG; ISSN: 0032-3861

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Phosphonates, O,O-di-1-phenylethyl phenylphosphonate (I), O,O-di-tert-Bu

phenylphosphonate, and O,O-dicyclohexyl phenylphosphonate, were examined

as non-salt-type latent initiators in the polymerization of iso-Bu vinyl

ether (IBVE), Ph vinyl ether (PVE), and tri(ethylene glycol) divinyl ether

(DVE-3). The polymerization of IBVE and PVE did not proceed below 90°

and 120°, but rapidly proceeded above these temps. with I, resp. DVE-3

cured with I quant. at 150° for 12 h to afford brown gel insol. in

common organic solvents. The phosphonates served as novel non-salt-type

latent initiators in the polymerization of the vinyl ether monomers.

143490-04-4

IT RL: CAT (Catalyst use); USES (Uses)

(polymerization catalyst; phosphonates as non-salt-type latent

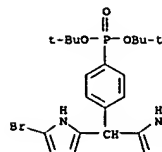
initiators for

vinyl ether polymerization)

RN 143490-04-4 CAPLUS

CN Phosphonic acid, phenyl-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX

NAME)

REFERENCE COUNT:
THIS

48

THERE ARE 48 CITED REFERENCES AVAILABLE FOR

FORMAT

RECORD. ALL CITATIONS AVAILABLE IN THE RE

L12 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:494017 CAPLUS

DOCUMENT NUMBER: 135:211355

TITLE: Curing of epoxides with O,O-Di-t-butyl

phenylphosphonate as thermally latent initiator

AUTHOR(S): Kim, Moonsuk; Sanda, Fumio; Endo, Takeshi

CORPORATE SOURCE: Chemical Resources Laboratory, Tokyo Institute of

Technology, Yokohama, 226-8503, Japan

SOURCE: Journal of Applied Polymer Science (2001), 81(10),

2347-2351

CODEN: JAPNAB; ISSN: 0021-8995

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The polymerization of glycidyl Ph ether (GPE) was examined with

O,O-di-t-Bu

phenylphosphonate (BP) as an initiator in the presence of several Lewis

acids, ammonium salts, and Me cyanoacetate. BP served as an excellent

thermally latent initiator in the polymerization of GPE in the presence

of ZnCl2

and Zn(acac)2. Epikote 828 was cured with BP (5 mol%) in the presence of

ZnCl2 at 150°C to afford the solvent-insol. gelled epoxy resin

quant., which was thermally more stable than was the one cured without

ZnCl2. No curing took place at room temperature for 7 mo.

143490-04-4, Di-tert-butyl phenylphosphonate

IT RL: CAT (Catalyst use); USES (Uses)

(polymerization of glycidyl Ph ether and crosslinking of bisphenol

A-based

epoxy resin with O,O-Di-t-Bu phenylphosphonate as thermally latent

initiator)

RN 143490-04-4 CAPLUS

CN Phosphonic acid, phenyl-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX

NAME)

L12 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2005 ACS ON STN

ACCESSION NUMBER: 2000:740724 CAPLUS

DOCUMENT NUMBER: 134:18008

TITLE: Phosphonic acid esters as thermally latent initiators: initiation process in the polymerization of glycidyl phenyl ether

AUTHOR(S): Kim, Moonsuk; Sanda, Fumio; Nakamura, Yoshiyuki; Endo, Takeshi

CORPORATE SOURCE: Research Laboratory of Resources Utilization, Tokyo Institute of Technology, Yokohama, 226-8503, Japan

SOURCE: Macromolecular Chemistry and Physics (2000), 201(14), 1691-1695

CODEN: MCHPES; ISSN: 1022-1352

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

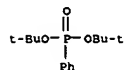
AB The initiating species of phosphonic acid esters serving as thermally latent initiators was investigated in the cationic polymerization of glycidyl Ph

ether (GPE). O,O-Di-t-Bu phenylphosphonate (IH) dissociated into phenylphosphonic acid and isobutene on heating to 150°C. 2H NMR spectroscopic study was carried out to examine the alkyl initiating species in the cationic polymerization of GPE with O,O-di-t-butyl-d9 phenylphosphonate (1D) in the presence of ZnCl2. A signal based on the t-butyl-d9 group was observed in the obtained polymer. The cationic polymerization of GPE with phosphonic acid was carried out to examine the proton initiating species at 170°C. GPE was converted quantitatively to the corresponding polymer. It was suggested that both the alkyl cation and the proton serve as the initiating species in the cationic polymerization of GPE.

IT 143490-04-4
RL: CAT (Catalyst use); USES (Uses)
(phosphonic acid esters as thermally latent initiators for polymerization of glycidyl Ph ether)

RN 143490-04-4 CAPLUS

CN Phosphonic acid, phenyl-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



IT 309918-36-3P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(phosphonic acid esters as thermally latent initiators for polymerization of glycidyl Ph ether)

RN 309918-36-3 CAPLUS

CN Phosphonic acid, phenyl-, bis[1,1-di(methyl-d3)ethyl-2,2,2-d3] ester (9CI) (CA INDEX NAME)

L12 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2005 ACS ON STN

ACCESSION NUMBER: 1999:723555 CAPLUS

DOCUMENT NUMBER: 132:50303

TITLE: Polymerization of glycidyl phenyl ether with phosphonic acid esters as novel thermally latent initiators

AUTHOR(S): Kim, Moonsuk; Sanda, Fumio; Endo, Takeshi

CORPORATE SOURCE: Research Laboratory of Resources Utilization, Tokyo Institute of Technology, Midori-ku Yokohama, 226-8503, Japan

SOURCE: Macromolecules (1999), 32(25), 8291-8295

CODEN: MAMOBX; ISSN: 0024-9297

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

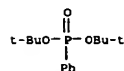
LANGUAGE: English

AB Novel phosphonic acid esters, O,O-bis(1-phenylethyl) phenylphosphonate (I), O,O-di-tert-Bu phenylphosphonate (II), and O,O-dicyclohexyl phenylphosphonate (III), were synthesized from PhP(O)Cl2 and the corresponding alcohols. The phenylphosphonic esters decomposed into phenylphosphonic acid and the corresponding olefins by heating at 150-170°C. Their initiator activities were examined in the cationic polymerization of glycidyl Ph ether (GPE). They converted GPE only 4% even at 190°C in the absence of ZnCl2. In the presence of ZnCl2 along with the phosphonates, GPE did not convert below 90°C in the case of I and II, and below 140°C in the case of III, but it rapidly converted to afford polyGPE with Mn of 2000-7000 above those temps. It was found that the phosphonates served as thermally latent initiators in the polymerization of GPE in the presence of ZnCl2.

IT 143490-04-4P, Di-tert-butyl phenylphosphonate
RL: CAT (Catalyst use); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
(preparation of phosphonate esters as catalysts for polymerization of glycidyl Ph ether)

RN 143490-04-4 CAPLUS

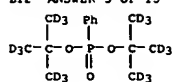
CN Phosphonic acid, phenyl-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS

FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L12 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2005 ACS ON STN (Continued)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS

FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L12 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2005 ACS ON STN

ACCESSION NUMBER: 1993:553922 CAPLUS

DOCUMENT NUMBER: 119:153922

TITLE: Herbicidal activity of derivatives of alkyl- and arylphosphonic acids

AUTHOR(S): Molodtsov, Zh. V.; Aleksandrova, I. A.; Reznik, V. S.; Gazizov, T. Kh.

CORPORATE SOURCE: Inst. Org. Fiz. Khim., Kazan, Russia

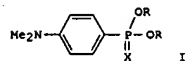
SOURCE: Fiziologicheskii Aktivnye Veshchestva (1992), 24, 69-71

CODEN: FAVUAI; ISSN: 0533-1153

DOCUMENT TYPE: Journal

LANGUAGE: Russian

GI

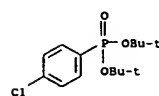


AB Of 17 RP(X)(OR)2, I (R = Et, ClCH2, ClC2H4, CH2CH, Ph, or ClC6H4; R1 = iso-Pr, Bu, or iso-C5H11; X = O or S) and 10 II (R = Pr, Bu or C5H11, or iso-Pr, -Bu or -C5H11; X = O or S), I (R = Ph, R1 = Bu, X = O) and II (R = iso-Pr, X = O) were the most active and selective herbicides, suppressing strongly the growth of wheat, barley, buckwheat, and sunflower, without phytotoxicity to corn.

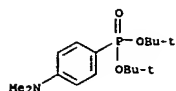
IT 150034-63-2 150034-71-2
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(herbicidal activity of)

RN 150034-63-2 CAPLUS

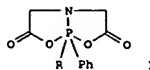
CN Phosphonic acid, (4-chlorophenyl)-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



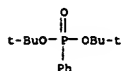
RN 150034-71-2 CAPLUS
CN Phosphonic acid, (4-(dimethylamino)phenyl)-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



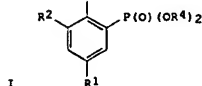
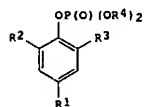
L12 ANSWER 8 OF 15 CAPIUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1992:571557 CAPIUS
 DOCUMENT NUMBER: 117:171557
 TITLE: Alkoxylation of hydridophosphoranes
 AUTHOR(S): Liu, Lunzu; Li, Guowei; Huang, Mingzhi
 CORPORATE SOURCE: Inst. Elemento-Org. Chem., Nankai Univ., Tianjin, 300071, Peop. Rep. China
 SOURCE: Phosphorus, Sulfur and Silicon and the Related Elements (1992), 69(1-2), 1-6
 CODEN: PSSLEC; ISSN: 1042-6507
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 117:171557
 GI



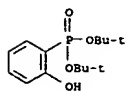
AB The bicyclic hydridophosphorane I (R = H) reacted with a series of alcs. in the presence of Ph disulfide to give the corresponding isolable alkoxyphosphoranes I (R = OR1, R1 = Me, Et, Pr, Bu, 1-hexyl, isopropyl). The reactivities of the alcs. in this reaction were dependent on the steric hindrance of the R1 groups.
 IT 143490-04-4
 RL: RCT (Reactant); RACT (Reactant or reagent) (PMR of)
 RN 143490-04-4 CAPIUS
 CN Phosphonic acid, phenyl-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



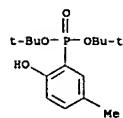
L12 ANSWER 9 OF 15 CAPIUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1991:656288 CAPIUS
 DOCUMENT NUMBER: 115:256288
 TITLE: Steric and electronic effects in the aryl phosphate to
 arylphosphonate rearrangement
 AUTHOR(S): Casteel, Dee Ann; Peri, S. Prasad
 CORPORATE SOURCE: Coll. Pharm., Univ. Iowa, Iowa City, IA, 52242, USA
 SOURCE: Synthesis (1991), (9), 691-3
 CODEN: SYNTBF; ISSN: 0039-7891
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 115:256288
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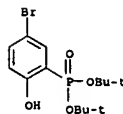
AB Aryl phosphate I (R1 = CO2Me3, Me, H, Br; R2, R3 = H, Br, R4 = Et, Me3), prepared from the corresponding phenols, underwent rearrangement upon treatment with either LDA or BuLi to give arylphosphonates II. I (R1 = CO2Me3; R2 = R3 = H or Br) failed to undergo the rearrangement. Steric and electronic effects on the rearrangement were discussed.
 IT 98057-61-5P 124982-86-1P 137360-77-1P
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
 RN 98057-61-5 CAPIUS
 CN Phosphonic acid, (2-hydroxyphenyl)-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



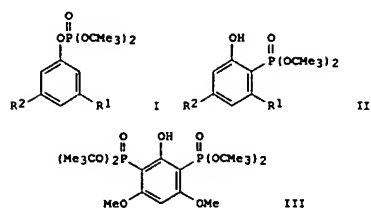
RN 124982-86-1 CAPIUS
 CN Phosphonic acid, (2-hydroxy-5-methylphenyl)-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 137360-77-1 CAPIUS
 CN Phosphonic acid, (5-bromo-2-hydroxyphenyl)-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

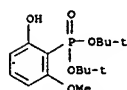


L12 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1991:608097 CAPLUS
 DOCUMENT NUMBER: 115:208097
 TITLE: Metalation induced rearrangement of di-tert-butyl
 (3-substituted phenyl) phosphates
 AUTHOR(S): Dhawan, Balram; Redmore, Derek
 CORPORATE SOURCE: Petrolite Corp., St. Louis, MO, 63119, USA
 SOURCE: Phosphorus, Sulfur and Silicon and the Related
 Elements (1991), 61(3-4), 183-7
 CODEN: PSSLEC; ISSN: 1042-6507
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 115:208097
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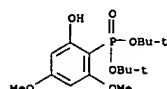
AB Treatment of di-tert-Bu aryl phosphates I (R1 = R2 = Me; R1 = OMe, R2 =
 H,
 OMe) with $\text{LiN}(\text{CHMe}_2)_2$ at -78° followed by warming to room temperature
 yields di-tert-Bu 2-hydroxyarylphosphonates II in 54-75% yields.
 o-Phenylenebis(phosphonate) III was prepared in 59% yield by treatment of
 di-tert-Bu (2-di-tert-butoxyphosphinyl)-3,5-dimethoxyphenyl phosphate
 with

IT $\text{LiN}(\text{CHMe}_2)_2$.
 136829-79-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and deesterification of)
 RN 136829-79-3 CAPLUS
 CN Phosphonic acid, (2-hydroxy-6-methoxyphenyl)-, bis(1,1-dimethylethyl)
 ester (9CI) (CA INDEX NAME)

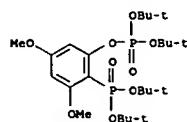


IT 136829-83-9P

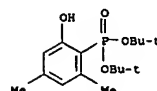
L12 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



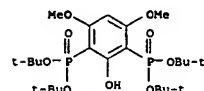
L12 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and lithiation-induced rearrangement of)
 RN 136829-83-9 CAPLUS
 CN Phosphoric acid,
 2-[bis(1,1-dimethylethoxy)phosphinyl]-3,5-dimethoxyphenyl
 bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



IT 136829-78-2P 136829-84-OP
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 136829-78-2 CAPLUS
 CN Phosphonic acid, (2-hydroxy-4,6-dimethylphenyl)-, bis(1,1-dimethylethyl)
 ester (9CI) (CA INDEX NAME)

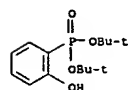


RN 136829-84-0 CAPLUS
 CN Phosphonic acid, (2-hydroxy-4,6-dimethoxy-1,3-phenylene)bis-,
 tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

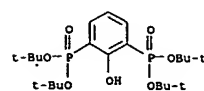


IT 136829-80-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation, deesterification, and phosphinylation of)
 RN 136829-80-6 CAPLUS
 CN Phosphonic acid, (2-hydroxy-4,6-dimethoxyphenyl)-, bis(1,1-dimethylethyl)
 ester (9CI) (CA INDEX NAME)

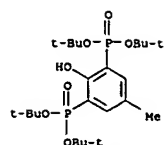
L12 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1990:56102 CAPLUS
 DOCUMENT NUMBER: 112:56102
 TITLE: Rearrangement of di-tert-butyl aryl phosphates to
 di-tert-butyl (2-hydroxyaryl)phosphonates.
 Preparation of (2-hydroxy-1,3-phenylene)bisphosphonic
 acids
 AUTHOR(S): Dhawan, Balram; Redmore, Derek
 CORPORATE SOURCE: Petrolite Corp., St. Louis, MO, 63119, USA
 SOURCE: Phosphorus, Sulfur and Silicon and the Related
 Elements (1989), 42(3-4), 177-82
 CODEN: PSSLEC; ISSN: 1042-6507
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 112:56102
 AB Rearrangement of $\text{RC}_6\text{H}_4\text{OP}(\text{O})(\text{OCMe}_3)_2$ (R = m-, p-Me) with $\text{LiN}(\text{CHMe}_2)_2$ gave
 $\text{RC}_6\text{H}_3(\text{OH})[\text{P}(\text{O})(\text{OCMe}_3)_2]_{1,2}$, which, with $\text{ClP}(\text{O})(\text{OCMe}_3)_2$ (I), gave
 $\text{RC}_6\text{H}_3[\text{P}(\text{O})(\text{OCMe}_3)_2]_2$, which rearranged with $\text{LiN}(\text{CHMe}_2)_2$ to give
 $\text{RC}_6\text{H}_2(\text{OH})[\text{OP}(\text{O})(\text{OCMe}_3)_2]_{2-1,2,6}$ (II). Treatment of I and II with $\text{F}_3\text{CCO}_2\text{H}$
 in C_6H_6 gave $\text{RC}_6\text{H}_3(\text{OH})[\text{P}(\text{O})(\text{OH})_2]_{1,2}$ and $\text{RC}_6\text{H}_2(\text{OH})[\text{P}(\text{O})(\text{OH})_2]_{2-1,2,6}$,
 resp.
 98057-61-5
 IT
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (phosphorylation of)
 RN 98057-61-5 CAPLUS
 CN Phosphonic acid, (2-hydroxyphenyl)-, bis(1,1-dimethylethyl) ester (9CI)
 (CA INDEX NAME)



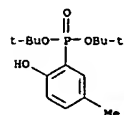
IT 124982-91-8P 124982-92-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and hydrolysis of)
 RN 124982-91-8 CAPLUS
 CN Phosphonic acid, (2-hydroxy-1,3-phenylene)bis-, tetrakis(1,1-
 dimethylethyl) ester (9CI) (CA INDEX NAME)



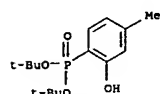
RN 124982-92-9 CAPLUS
 CN Phosphonic acid, (2-hydroxy-5-methyl-1,3-phenylene)bis-,
 tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



IT 124982-86-1P 124982-87-2P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and phosphorylation of)
 RN 124982-86-1 CAPLUS
 CN Phosphonic acid, (2-hydroxy-5-methylphenyl)-, bis(1,1-dimethylethyl)
 ester (9CI) (CA INDEX NAME)



RN 124982-87-2 CAPLUS
 CN Phosphonic acid, (2-hydroxy-4-methylphenyl)-, bis(1,1-dimethylethyl)
 ester (9CI) (CA INDEX NAME)

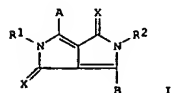


IT 124982-89-4P 124982-90-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and rearrangement of)
 RN 124982-89-4 CAPLUS
 CN Phosphoric acid, 2-[bis(1,1-dimethylethoxy)phosphinyl]phenyl
 bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

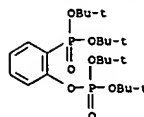
ACCESSION NUMBER: 1987:578038 CAPLUS
 DOCUMENT NUMBER: 107:178038
 TITLE: Pyrrolo[3,4-C]pyrrole pigments for high molecular
 weight organic polymers
 INVENTOR(S): Jost, Max; Iqbal, Abdul; Rochat, Alain Claude
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
 SOURCE: Eur. Pat. Appl., 17 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 224445	A2	19870603	EP 1986-810532	19861120
EP 224445	A3	19890315		
EP 224445	B1	19910904		
R: CH, DE, FR, GB, IT, LI				
US 4791204	A	19881213	US 1986-932258	19861119
JP 62149759	A2	19870703	JP 1986-276908	19861121
JP 2551565	B2	19961106		
CA 1289964	A1	19911001	CA 1986-523620	19861124
US 4914211	A	19900403	US 1988-231324	19880812
JP 07173406	A2	19950711	JP 1994-211203	19940905
JP 2572555	B2	19970116		
PRIORITY APPLN. INFO.:				
		CH 1985-5054	A	19851126
		US 1986-932258	A3	19861119

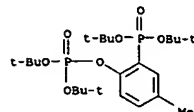
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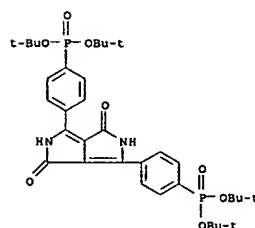
AB The title compds. I [A, B = alkyl, arylalkyl, aryl, aromatic heterocyclic
 moiety; R1, R2 = H, (un)substituted alkyl, alkenyl, alkynyl, arylalkyl,
 cycloalkyl, H2NCO, alkylcarbonyl, arylcarbonyl, alkoxyalkyl, aryl,
 alkanoyl, aroyl; X = O, S], useful as pigments for high mol. weight
 organic
 polymers, lacquers, and coating materials, are prepared by the
 cyclocondensation of nitriles and succinate esters in the presence of
 strong bases. Thus, 3-NCC6H4CO2Pr-iso, tert-BuLi, and
 iso-PrO2C(CH2)2CO2Pr-iso were heated to reflux for 5 h, cooled, MeOH
 added, the mixture slowly neutralized with AcOH and MeOH, filtered, and
 saponified, forming II [A = B = 3-C6H4CO2H, R1 = R2 = H, X = O], an
 orange
 powder.
 IT 110893-31-7
 RL: USES (Uses)
 (preparation of mixts. containing, as pigments for plastics)
 RN 110893-31-7 CAPLUS



RN 124982-90-7 CAPLUS
 CN Phosphoric acid, 2-[bis(1,1-dimethylethoxy)phosphinyl]-4-methylphenyl
 bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



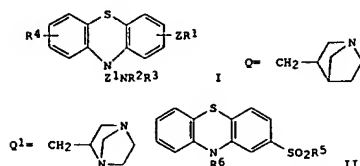
CN Phosphonic acid, [(2,3,5,6-tetrahydro-3,6-dioxopyrrolo[3,4-c]pyrrole-1,4-
 diyl)di-4,1-phenylene]bis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA
 INDEX NAME)



L12 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1986:148893 CAPLUS
 DOCUMENT NUMBER: 104:148893
 TITLE: Phenothiazine compounds
 INVENTOR(S): Leighton, Harry Jefferson; Gillies, Iain
 PATENT ASSIGNEE(S): Wellcome Foundation Ltd., UK
 SOURCE: Eur. Pat. Appl., 43 pp.
 CODEN: EPXXXX
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 163551	A1	19851204	EP 1985-303875	19850531
EP 163551	B1	19920812		
R: CH, DE, FR, GB, IT, LI				
SU 1731052	A3	19920430	SU 1984-3829883	19841227
US 4705854	A	19871110	US 1985-738846	19850528
JP 61044884	A2	19860304	JP 1985-118690	19850531
PRIORITY APPLN. INFO.:			GB 1984-13915	A 19840531

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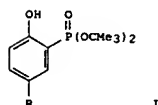


AB The title compds. (I; R₁ = an acidic group other than a monocarboxylic acid group, having acidity ≥CO₂H; R₂, R₃ = H, alkyl; R₂R₃N = heterocyclyl; R₄ = H, (halo)alkyl, alkoxy, halo, HO₂CZ; Z = bivalent, aliphatic hydrocarbon group, bond; Z₁ = alkylene; R₂R₃NZ₁ = Q, Q₁) and their esters and amides were prepared. Thus, 4,3-Cl(O₂N)C₆H₃SO₂NMe₂ and 2-BrC₆H₄SO₂NMe₂ were refluxed in ethanolic NaOH to give 95% 2-BrC₆H₄SO₂NMe₂-2,4 which was reduced to the amine (84%) with Fe powder in EtOH/HOAc. The latter was cyclized by refluxing with Cu bronze and K₂CO₃ in DMF to give phenothiazinesulfonamide II (R₅ = Me₂N, R₆ = H). This was alkylated with Me₂N(CH₂)₃Cl and deamidated by heating with Na in Me₂CHCH₂CH₂OH to give I (R₅ = OH, R₆ = Me₂N(CH₂)₃) (III). III is a histamine receptor antagonist with pA₂ = 7.8 in the isolated guinea pig ileum test.

IT 101184-72-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and deesterification of)

RN 101184-72-9 CAPLUS

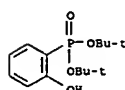
L12 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1985:523610 CAPLUS
 DOCUMENT NUMBER: 103:123610
 TITLE: Rearrangement of a di-tert-butyl aryl phosphate to a di-tert-butyl (2-hydroxyaryl)phosphonate. A convenient preparation of (2-hydroxyphenyl)- and (2-hydroxy-5-methoxyphenyl)phosphonic acids
 AUTHOR(S): Dhawan, Balram; Redmore, Derek
 CORPORATE SOURCE: Petrolite Corp., St. Louis, MO, 63119, USA
 SOURCE: Synthetic Communications (1985), 15(5), 411-16
 CODEN: SYNCAY; ISSN: 0039-7911
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 103:123610
 GI



AB Treating p-RC₆H₄ONa (R = H, MeO) with ClP(O)(OCMe₃)₂ gave the corresponding Ph phosphates. Treating these Ph phosphates with Li diisopropylamide in THF gave clean rearrangement to phosphonates I (same R). The corresponding phosphonic acids were obtained by use of CF₃CO₂H in C₆H₆.

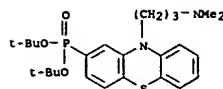
IT 98057-61-5P 98057-64-8P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and formation of acid from)

RN 98057-61-5 CAPLUS
 CN Phosphonic acid, (2-hydroxyphenyl)-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

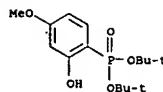


RN 98057-64-8 CAPLUS
 CN Phosphonic acid, (2-hydroxy-4-methoxyphenyl)-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

L12 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
 CN Phosphonic acid, (10-[3-(dimethylamino)propyl]-10H-phenothiazin-2-yl)-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



L12 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



ACCESSION NUMBER: 1961:32899 CAPLUS

DOCUMENT NUMBER: 55:32899

ORIGINAL REFERENCE NO.: 55:6424g-1

TITLE: Esters of acetone cyanohydrin and aromatic acids

AUTHOR(S): Yagupol'skii, L. M.; Belinskaya, R. V.

CORPORATE SOURCE: Inst. Org. Chem., Kiev

SOURCE: Zhurnal Obshchei Khimii (1960), 30, 2014-16

CODEN: ZOKGUA4; ISSN: 0044-460X

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB Esters of p-chloro-, p-fluoro-, and p-nitrobenzoic acids and acetone cyanohydrin possess some insecticidal activity (unspecified). Reaction

of equimolar ams. of Me₂C(CN)OH and chlorides of organic acids in the presenceof requisite amount of C₅H₅N at room temperature 1 day gave the

following esters

after an aqueous treatment (for Me₂C(CN)OR, R, % yield, and m.p. shown):
 p-O₂NC₆H₄CO (I), 73.2, 124-5°; p-ClC₆H₄CO, 71.5, 63-4°;
 p-FC₆H₄CO, 92.8, 36-7°; p-F₃CC₆H₄CO, 72, 65-6°;
 p-O₂NC₆H₄SO₂, 53.7, 63.5-4.5°; 2,5-Cl₂C₆H₃SO₂, 61.2,
 99.5-100.5°; p-BrC₆H₄SO₂, 50, 92-3°; p-MeC₆H₄SO₂, 60,
 97-8°; (for the following esters, % yield add m. p. given)
 [Me₂C(CN)O]2P(O)Ph, 70, 72-3°; [Me₂C(CN)O]2P(O)C₆H₄Cl-p, 54,
 76-7°; O[P(S)Ph(OOMe₂CN)]₂, 21.5, 107-8°. The last compound
 was formed from the above reaction with PhPSCl₂. Heating I with C₅H₅N 30
 min. on a steam bath gave 94.7% quaternary salt which with NaClO₄ gave
 α-cyanoisopropylpyridinium perchlorate, m. 191-2°, thus
 showing the alkylating ability of esters of I type.

IT 101937-72-8, Phosphonic acid, (p-chlorophenyl)-,
 bis(1-cyano-1-methylethyl) ester 106273-04-5, Phosphonic acid,
 phenyl-, bis(1-cyano-1-methylethyl) ester

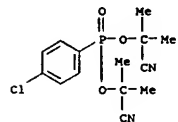
(preparation of)

RN 101937-72-8 CAPLUS

CN Phosphonic acid, (p-chlorophenyl)-, bis(1-cyano-1-methylethyl) ester

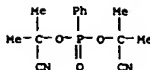
(6CI)

(CA INDEX NAME)



RN 106273-04-5 CAPLUS

CN Phosphonic acid, phenyl-, bis(1-cyano-1-methylethyl) ester (6CI) (CA INDEX NAME)



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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

74.55

560.51

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-10.95

-10.95

STN INTERNATIONAL LOGOFF AT 11:43:35 ON 15 NOV 2005